



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,405	11/04/2003	Moshe Rock	10638-067001	5742
26161 7590 04/19/2007 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER STEELE, JENNIFER A	
			ART UNIT	PAPER NUMBER
			1771	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/19/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/700,405

**Applicant(s)**

ROCK ET AL.

**Examiner**

Jennifer Steele

**Art Unit**

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-5,7-9,11-15,17-20,26-31,33,35-40 and 62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9,11-15,17-20,26-31,33,35-40 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102/103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1-5, 7-9, 11-16, 33, 35-37, 39-40 and 62 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gunzel et al. (WO 01/12889). Gunzel teaches a treated fabric suitable for applications such as garments, tenting, footwear, bivy bags and other protective coverings or shelters (pg 3, lines 20-26). Gunzel teaches a woven or knitted fabric having a discontinuous randomly disposed polymeric material (pg 3, lines 25-35). Gunzel teaches that the woven or knitted fabric can have a surface that is fleeced or sanded (pg. 5, lines 20-30). Gunzel teaches that the use of the polymer areas provide better local abrasion resistance needed around cuffs, collars, pocket edges and generally any folds or creases (pg 6, lines 20-30). In Figures 1-6, Gunzel teaches the configuration of the discrete areas of coating and teaches that the polymer coating reduces local abrasion and, therefore, would provide a different performance characteristic in regards to pilling. Gunzel

Art Unit: 1771

teaches by referencing Blauer et al. (US 5,626,949) that predetermined and repeating patterns such as honeycombs, grids, and discrete dots can be used but also teaches that regular patterns are prone to disadvantages (pg. 2, lines 7-18). Gunzel teaches the preferred invention has discontinuous random pattern, however also teaches patterned coatings. Therefore it would have been obvious to one of ordinary skill in the art to select a discontinuous polymer coating in patterned or random form as taught by Gunzel and Blauer. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112- 2112.02

As to claim 2, Gunzel teaches a shell fabric with properties of waterproofness, windproofness, water vapor permeability but does not teach insulation property. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112- 2112.02

As to claim 3, Gunzel teaches that, despite the use of the polymer coating, the fabric maintains good moisture vapor transmissions (pg 3, lines 15-20).

As to claim 4 and 5, Gunzel teaches that the fabric can be used in a garment which means any article that can be worn such as footwear, hats, gloves, shirts, coats,

Art Unit: 1771

trousers (page 4, lines 30 - 35) as required by claims 33 and 35 - 36. It should be noted that "elbow region" and "shoulder region" are not given patentable weight because there is no special relationship or structure provided by those limitations. Furthermore, Gunzel teaches reinforcing such apparel and indicate that it is desirable to use the coating in areas that are subject to abrasion.

As to claims 12 - 13, although Gunzel does not explicitly teach the claimed bound groupings of yams have a relatively higher tenacity than individual yam fibers and that the bound groupings have tenacity greater than 5 grams per denier, it is reasonable to presume that the claimed properties are inherent. Support for said presumption is found in the use of like materials (i.e. a knitted polyester fabric having a discrete polymer coating comprising Applicant's claimed polymers) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. In re Fitzgerald 205 USPQ 594. In addition, the presently claimed properties would obviously have been present once the Gunzel product is provided. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977) as to providing of this rejection made above under 35 USC 102.

As to claims 39 - 40, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or an obvious variant from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has

Art Unit: 1771

been shifted to the Applicant to show unobvious differences between the claimed product and the prior art product. In re Marosi, 218 USPQ 289, 292 (Fed. Cir. 1983). Gunzel teaches a discontinuous coating which meets the structural limitations as required by Applicant.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claim 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel (WO 01/12889) and in view of Rock et al. (US 2001/0046580). Gunzel teaches the claimed invention above but fails to teach using a circular reverse plaited knit construction as required by claim 17. Gunzel fails to teach that the stitch yarn is finer than the loop yarn and fails to teach that the loop yarn is at most about 1.5 dpf and the

Art Unit: 1771

stitch yarn is at least about 1.5 dpf as required by claims 19 and 20. Rock teaches double-face velour fabric articles having improved insulation performance suitable for apparel applications [0009]. Rock teaches that the knitted fabric has a technical face formed by a micro-denier filament stitch yarn and a technical back formed by a micro-denier filament loop yarn (ABST). Rock teaches that using a reverse plaiting technique in circular knit fabrics can provide thermal insulation properties [0007] and [0008]. Rock teaches that the loop yarn should be greater in size than the stitch yarn [0021]. Rock teaches that improved performance of the fabric is achieved by increasing the yarn count and filament count to make paths through the fabric more tortuous, thus making it more difficult for air to penetrate quickly through the double-face velour fabric article [0027].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the reverse plaited circular knit fabric having a stitch yarn sizes of Rock in a coated fabric of Gunzel, motivated to improve the thermal insulation property of the fabric.

3. Claim 26-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel (WO 01/12889) in view of Rock et al. (US 2001/0046580) in further view of Grunfeld (US 5,198,288). Gunzel teaches the claimed invention above but differs from the current application and does not teach an elastomeric material in the form of spandex wound about the yarn at the outer surface. Grunfeld teaches a knit fabric with and elastic combination yarn and improved machine working loss and dimensional stability (ABST). Grunfeld teaches a combination yarn comprising spandex (ABST). Grunfeld

Art Unit: 1771

teaches various types of elastic combination yarns such as cover, core spun, plied, core-effect, plaited, air-jet-entangled and like yarns (col. 3, lines 7-10). Grunfeld teaches elastic component of yarns made of spandex or other elastomeric fiber (col. 3, lines 5-6). Grunfeld teaches the elastic yarns are suitable for circular knit machines and produce fabrics suited for sweaters, socks, skirts and dresses and the like (col. 3, lines 22-35).

It would have been obvious to one of ordinary skill in the art to use a spandex yarn made of air jet cover process in the knit fabric of Grunzel and Rock, motivated to produce an elastic fabric with good dimensional stability.

4. Claim 30-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Gunzel (WO 01/12889) in view of Rock et al. (US 2001/0046580) in further view of Muramoto et al. (US 5,171,633). Gunzel teaches the claimed invention but fails to teach that the yarns at the outer surface include cored yarns comprising a core and sheath as required by claim 30 and that the core comprises an elastomeric material as required by claim 31. Muramoto is directed to an elastic filament yarn for use in applications such as socks, panty hose, swimsuits and foundation garment (ABST). The elastic filament yarn has polyester in the sheath component and polyurethane in the core component (ABST). Muramoto teaches that the yarns can be used alone or used as a covering yarn where conventional polyurethane yarns have been used (col. 24, lines 1-15). Muramoto teaches that the yarn exhibits good heat resistance, low stress and is made using the conventional spinning process.



Art Unit: 1771

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use sheath-core polyurethane yarns of Muramoto in the knitted fabric of Rock and Gunzel motivated to produce a circular knit fabric with good mechanical properties.

### ***Response to Arguments***

5. Applicant's arguments filed 2/02/2007 have been fully considered but they are not persuasive. Applicants argue that the primary reference, Gunzel, differs from the current application because Gunzel teaches discontinuous polymer coating while the applicants teach a coating deposited in predetermined and repeating patterns.

Examiner has responded in the office action that the Gunzel also teaches a patterned coating in view of Blauer. While Gunzel teaches that the patterned coating has disadvantages, neither Gunzel, Blauer nor the current applicant provides evidence of the effects, advantages or disadvantages of a patterned discontinuous coating versus a random discontinuous coating.

6. Applicants argue that the location of the discontinuous polymer coating of Gunzel is not equivalent to the locations of the applicants and not trivial distinctions. Gunzel is described as using fine, lightweight non-woven webs to "minimize the distance between polymer areas, to provide for better local abrasion resistance as is needed around cuffs, collars pocket edges and generally any folds or creases." Examiner responds that the location of the discontinuous polymer coating on the fabric would depend on the use of the fabric and the type of garment the fabric is employed. This would be a statement of

Art Unit: 1771

use for the fabric and therefore placement of the discontinuous polymer coating is also a dependent on the use of the fabric. While placement of the coating is a primary concern for creating the necessary comfort and durability, it is directly related to the use of the fabric. Statements of use do not distinguish the applicant's fabric from the prior art of Gunzel.

7. Applicant's arguments that Gunzel does not disclose a knit construction with groupings of yarns having tenacity greater than 5 grams per denier. Gunzel teaches a woven or knit fabric made from yarn, either single or multiple strands (ABST). While Gunzel does not disclose a yarn tenacity, Gunzel teaches the structure of a knit and therefore the Examiner can conclude that depending on the yarn selection and the use of the fabric, yarns of Gunzel could have the tenacity of the current application and it would have been obvious to optimize the yarn stretch dependent on the use of the fabric.

8. Applicant argues that Blauer a person of ordinary skill in the art would not be motivated to combine Gunzel and Blauer. Gunzel references Blauer and considers Blauer's patterned polymer coating to be inferior to that of Gunzel therefore indicating there would be motivation to combine, however Gunzel perceives the Gunzel invention to be superior.

9. Applicants argue that Gunzel fails to teach a reverse plaiting technique. Gunzel teaches a coated fabric that can be on a woven or knit fabric. Rock teaches a knit fabric with the desired properties of improved thermal insulation. Wherein Gunzel teaches the polymeric coating improves abrasion resistance, it would have been obvious to one of

Art Unit: 1771

ordinary skill in the art to combine a fabric structure with improved abrasion resistance Gunzel with a fabric of insulation properties of Rock to produce a fabric with improved abrasion resistance and insulation properties. Gunzel teaches a fabric for outerwear as does Rock. It would have been obvious to combine Gunzel and Rock to produce a fabric for outerwear that has insulation properties, abrasion resistance and water vapor permeability.

10. Applicant's arguments see page 13 of 18, filed 12/4/2006, with respect to claims 26-29 have been fully considered and are persuasive. The 35 U.S.C. 103(a) of Ido (US 5,456,960) has been withdrawn. Applicant's arguments with respect to claim 26-29 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicants argue that Muramoto fails to teach or suggest "a non-continuous coating comprising discrete coating segments". Muramoto teaches an elastic filament yarn. While Muramoto does not teach the fabric of Gunzel or the current applicants, Muramoto teaches the filament yarn for use in Gunzel, Rock and the current application. Therefore it would have been obvious to use the elastic filament yarn of Muramoto in the fabric of Gunzel, Rock and the current application.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Steele whose telephone number is (571) 272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

Art Unit: 1771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
ELIZABETH M. COLE  
PRIMARY EXAMINER

4/15/2007